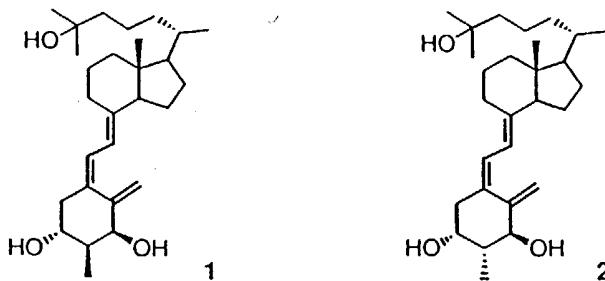


SYNTHESIS AND BIOLOGICAL ACTIVITIES OF 2-METHYL-20-EPI ANALOGUES OF 1α ,25-DIHYDROXYVITAMIN D₃. T. Fujishima, Z.-P. Liu, K. Konno and H. Takayama Faculty of Pharmaceutical Sciences, Teikyo University, Sagamiko, Kanagawa 199-01, JAPAN.

Active conformations of the A-ring of 1α ,25-dihydroxyvitamin D₃ is still unclear. In order to investigate the conformation-activity relationship of the A-ring portion, we have synthesized the 2-methyl analogues of 1α ,25-dihydroxyvitamin D₃, demonstrating that the introduction of the 2-methyl group elevates the affinity to the nuclear receptor (VDR) in some cases. In the present work, we designed and synthesized 2-methyl-20-epi analogues of 1α ,25-dihydroxyvitamin D₃. The binding affinities of the synthesized compounds were preliminarily tested using the bovine thymus vitamin D receptor. The 2α -methyl-20-epi analogue (1) exhibited about ten-fold higher potency than 1α ,25-dihydroxyvitamin D₃, whereas the 2β -methyl-20-epi analogue (2) had similar activity to 1α ,25-dihydroxyvitamin D₃.



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Clinical Topics and Vitamin D

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 (za) Renal osteodystrophy
 (zb) Cancer
 (zc) Neonatology/Pregnancy/Development
 (zd) Aging
 (ze) Dermatology
 (zf) Nutritional aspects
 (zg) Other (clinical topics)

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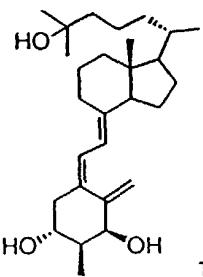
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EXPRESSION OF THE CALBINDIN-D_{28K} GENE IS ACC
CHANGES IN CHROMATIN STRUCTURE. L. Brown and I
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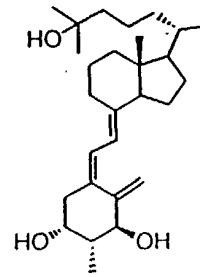
The chromatin structure of the chicken calbindin-D_{28K} and flanking DNA was studied in different chicken tissues. Expression of eukaryotic genes is accompanied by changes in the local structural organization of chromatin.

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